

**FEDERALLY ENFORCEABLE STATE  
OPERATING PERMIT (FESOP) RENEWAL  
OFFICE OF AIR QUALITY**

**Citizens Gas & Coke Utility - Johnstown Compressor Station  
State Road 157, 4 ½ miles North of Worthington  
Johnstown, Indiana 47471**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 055-14432-00029	
Original signed by Paul Dubenetzky Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: July 22, 2002  Expiration Date: July 22, 2007

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## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

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The Permittee owns and operates a stationary natural gas compressor station.

Authorized Individual:	Lindsay C. Lindgren
Source Address:	State Road 157, 4 ½ miles North of Worthington, Johnstown, Indiana 47471
Mailing Address:	RR 2, Box 180, Worthington, Indiana 47471
General Source Phone Number:	812 - 875 - 2066
SIC Code:	4922
County Location:	Greene
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) natural gas-fired Ajax two (2) cycle rich burn, reciprocating engine compressor, known as Ajax01, exhausting to Stack JO1, installed in 1961, rated at 230 horsepower output and 2,070,000 British thermal units per hour heat input.
- (b) Two (2) natural gas-fired Worthington four (4) cycle rich burn, reciprocating engine compressors, known as Worth02 and Worth03, exhausting to Stacks JO2 and JO3, both installed in 1961, rated at 550 horsepower output each and 4,950,000 British thermal units per hour heat input each.
- (c) Two (2) natural gas-fired Ingersoll-Rand four (4) cycle rich burn, reciprocating engine compressors, known as InRand04 and InRand05, exhausting to Stacks JO4 and JO5, installed in 1963 and 1969, respectively, rated at 500 horsepower output each and 4,500,000 British thermal units per hour heat input each.

### A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

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This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour with a total rating of 2.041 million British thermal units per hour consisting of:
  - (1) One (1) mechanical/comp. boiler rated at 1.092 million British thermal units per hour installed in 2001.

- (2) One (1) garage furnace rated at 0.050 million British thermal units per hour installed in 2001.
- (3) One (1) pipe tech office furnace rated at 0.050 million British thermal units per hour installed in 2001.
- (4) One (1) fire truck building hanging heater rated at 0.075 million British thermal units per hour installed in 1990.
- (5) One (1) storage building NE heater rated at 0.050 million British thermal units per hour installed in 1995.
- (6) Two (2) storage room hanging heaters rated at 0.075 million British thermal units per hour each installed in 1994.
- (7) One (1) store room office furnace rated at 0.080 million British thermal units per hour installed in 1994.
- (8) One (1) water heater rated at 0.033 million British thermal units per hour installed in 1994.
- (9) Two (2) water heaters rated at 0.032 million British thermal units per hour each installed in 1987 and 1993.
- (10) One (1) new office furnace rated at 0.150 million British thermal units per hour installed in 1993.
- (11) One (1) meeting room furnace rated at 0.150 million British thermal units per hour installed in 1993.
- (12) One (1) gas control furnace rated at 0.067 million British thermal units per hour installed in 1987.
- (13) One (1) storage building (documents) heater rated at 0.030 million British thermal units per hour installed in 1990.
- (b) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.
- (c) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (d) Closed loop heating and cooling systems.
- (e) Paved and unpaved roads and parking lots with public access.
- (f) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.
- (g) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

- (h) Emergency generators as follows: Natural gas turbines or reciprocating engines not exceeding 16,000 horsepower, consisting of one (1) natural gas fired reciprocating engine rated at 195 horsepower output.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
  - (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deletedby this permit.
- (b) All previous registrations and permits are superseded by this permit.

## SECTION B

## GENERAL CONDITIONS

### B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

### B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

### B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

### B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

### B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

### B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

### B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual"

as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]

- (c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

**B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]**

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

**B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]**

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
  - (1) Enforcement action;
  - (2) Permit termination, revocation and reissuance, or modification; and
  - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

**B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]**

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

**B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]**

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:



Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
  - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]**

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

**B.14 Emergency Provisions [326 IAC 2-8-12]**

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)  
or,

Telephone No.: 317-233-5674 (ask for Compliance Section)  
Facsimile No.: 317-233-5967

Failure to notify IDEM, OAQ, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

**B.15** Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

**B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]**

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.17 Permit Renewal [326 IAC 2-8-3(h)]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC

2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015

(b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

(1) A timely renewal application is one that is:

- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-8-9]

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

**B.19 Operational Flexibility [326 IAC 2-8-15]**

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:
- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
  - (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
  - (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
  - (4) The Permittee notifies the:  
  
Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
  
and  
  
United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590  
  
in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and
  - (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.  
  
Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).
- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:
- (1) A brief description of the change within the source;
  - (2) The date on which the change will occur;
  - (3) Any change in emissions; and
  - (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) Emission Trades [326 IAC 2-8-15(c)]  
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

**B.20 Permit Revision Requirement [326 IAC 2-8-11.1]**

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

**B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]**

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

**B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]**

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.



## SECTION C

## SOURCE OPERATION CONDITIONS

Entire Source
---------------

### Emissions Limitations and Standards [326 IAC 2-8-4(1)]

#### C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable;
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Any change or modification that increases the potential to emit PM to 250 tons per year or more shall cause this source to become a major source pursuant to 326 IAC 2-2, PSD, and shall require prior OAQ approval.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

#### C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accord-

ance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

**C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]**

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

**C.5 Fugitive Dust Emissions [326 IAC 6-4]**

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

**C.6 Operation of Equipment [326 IAC 2-8-5(a)(4)]**

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission unit vented to the control equipment is in operation.

**C.7 Stack Height [326 IAC 1-7]**

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

**C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]**

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Indiana Accredited Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

### **Testing Requirements [326 IAC 2-8-4(3)]**

#### **C.9 Performance Testing [326 IAC 3-6]**

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

### **Compliance Requirements [326 IAC 2-1.1-11]**

#### **C.10 Compliance Requirements [326 IAC 2-1.1-11]**

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

### **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

#### **C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]**

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

#### **C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

### **Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

#### **C.13 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]**

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

#### **C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

#### **C.15 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]**

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

#### **C.16 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]**

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:
- Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) Reporting periods are based on calendar years.

### **Stratospheric Ozone Protection**

#### **C.17 Compliance with 40 CFR 82 and 326 IAC 22-1**

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and

emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]: Natural Gas-Fired Engine Compressors

- (a) One (1) natural gas-fired Ajax two (2) cycle rich burn, reciprocating engine compressor, known as Ajax01, exhausting to Stack JO1, installed in 1961, rated at 230 horsepower output and 2,070,000 British thermal units per hour heat input.
- (b) Two (2) natural gas-fired Worthington four (4) cycle rich burn, reciprocating engine compressors, known as Worth02 and Worth03, exhausting to Stacks JO2 and JO3, both installed in 1961, rated at 550 horsepower output each and 4,950,000 British thermal units per hour heat input each.
- (c) Two (2) natural gas-fired Ingersoll-Rand four (4) cycle rich burn, reciprocating engine compressors, known as InRand04 and InRand05, exhausting to Stacks JO4 and JO5, installed in 1963 and 1969, respectively, rated at 500 horsepower output each and 4,500,000 British thermal units per hour heat input each.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.1.1 Fuel Usage Limit (NO<sub>x</sub>) [326 IAC 2-8-4]

- (a) The amount of fuel delivered to the five (5) natural gas-fired compressors shall be less than a total of 58,705,122 cubic feet per twelve (12) consecutive month period. This will limit the NO<sub>x</sub> emissions from the five (5) engine compressors to less than ninety-seven and seven tenths (97.7) tons per year and CO emissions to less than seventy five and nine tenths (75.9) tons per year. Therefore, the requirements of 326 IAC 2-7 do not apply.
- (b) The requirement from F 6575-00029, issued on March 3, 1997, Condition D.1.1 that stated that the amount of fuel usage shall be limited to 69,130,000 cubic feet per 365 consecutive day period, equivalent to 98.0 tons of NO<sub>x</sub> or 63,370,000 cubic feet per twelve (12) consecutive month period, equivalent to 89.83 tons of NO<sub>x</sub> per month has been replaced by a twelve (12) consecutive month period limit. Note that the previous twelve (12) month NO<sub>x</sub> limit represented 11/12th of the 365-day FESOP limit. In addition, the NO<sub>x</sub> emission factor for natural gas-fired 2-cycle lean burn engines has changed from 2.7 to 3.17 pounds per million British thermal units. Therefore, Condition D.1.1 of F 055-6575-00029 is hereby rescinded.

#### D.1.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

### Compliance Determination Requirements

There are no specific Compliance Determination Requirements applicable to these emission units.

### Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

There are no specific Compliance Monitoring Requirements applicable to these emission units.

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

**D.1.3 Record Keeping Requirements**

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records of the monthly fuel usage for the five (5) engine compressors. Records maintained monthly shall be complete and sufficient to establish compliance with the natural gas fuel usage limit and the NO<sub>x</sub> emission limit established in Condition D.1.1.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**D.1.4 Reporting Requirements**

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).



**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: Citizens Gas & Coke Utility - Johnstown Compressor Station  
Source Address: State Road 157, 4 ½ miles North of Worthington, Johnstown, Indiana 47471  
Mailing Address: RR 2, Box 180, Worthington, Indiana 47471  
FESOP No.: 055-14432-00029

**This certification shall be included when submitting monitoring, testing reports/results  
or other documents as required by this permit.**

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) \_\_\_\_\_
- 9 Report (specify) \_\_\_\_\_
- 9 Notification (specify) \_\_\_\_\_
- 9 Affidavit (specify) \_\_\_\_\_
- 9 Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
Phone: 317-233-5674  
Fax: 317-233-5967**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY OCCURRENCE REPORT**

Source Name: Citizens Gas & Coke Utility - Johnstown Compressor Station  
Source Address: State Road 157, 4 ½ miles North of Worthington, Johnstown, Indiana 47471  
Mailing Address: RR 2, Box 180, Worthington, Indiana 47471  
FESOP No.: 055-14432-00029

**This form consists of 2 pages**

**Page 1 of 2**

**9** This is an emergency as defined in 326 IAC 2-7-1(12)  
CThe Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and  
CThe Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

**Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: Citizens Gas & Coke Utility - Johnstown Compressor Station  
Source Address: State Road 157, 4 ½ miles North of Worthington, Johnstown, Indiana 47471  
Mailing Address: RR 2, Box 180, Worthington, Indiana 47471  
FESOP No.: 055-14432-00029  
Facilities: Five (5) Engine Compressors  
Parameter: Fuel Usage  
Limit: Less than a total of 58,705,122 cubic feet of natural gas per twelve (12) consecutive month period, equivalent to less than 97.7 tons of NO<sub>x</sub> and 75.9 tons of CO per year

YEAR: \_\_\_\_\_

Month	Natural Gas Fuel Usage (cubic feet)	Natural Gas Fuel Usage (cubic feet)	Natural Gas Fuel Usage (cubic feet)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Citizens Gas & Coke Utility - Johnstown Compressor Station  
Source Address: State Road 157, 4 ½ miles North of Worthington, Johnstown, Indiana 47471  
Mailing Address: RR 2, Box 180, Worthington, Indiana 47471  
FESOP No.: 055-14432-00029

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**Indiana Department of Environmental Management  
Office of Air Quality**

**Technical Support Document (TSD)  
for a Federally Enforceable State Operating Permit (FESOP) Renewal**

**Source Background and Description**

<b>Source Name:</b>	<b>Citizens Gas &amp; Coke Utility - Johnstown Compressor Station</b>
<b>Source Location:</b>	<b>State Road 157, 4 ½ miles North of Worthington, Johnstown, Indiana 47471</b>
<b>County:</b>	<b>Greene</b>
<b>SIC Code:</b>	<b>4922</b>
<b>Operation Permit No.:</b>	<b>F 055-14432-00029</b>
<b>Permit Reviewer:</b>	<b>Mark L. Kramer</b>

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from Citizens Gas & Coke Utility - Johnstown Compressor Station relating to the operation of a stationary natural gas compressor station. Citizens Gas & Coke Utility - Johnstown Compressor Station was issued FESOP F 055-6575-00029, on March 3, 1997.

**Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) natural gas-fired Ajax two (2) cycle rich burn, reciprocating engine compressor, known as Ajax01, exhausting to Stack JO1, installed in 1961, rated at 230 horsepower output and 2,070,000 British thermal units per hour heat input.
- (b) Two (2) natural gas-fired Worthington four (4) cycle rich burn, reciprocating engine compressors, known as Worth02 and Worth03, exhausting to Stacks JO2 and JO3, both installed in 1961, rated at 550 horsepower output each and 4,950,000 British thermal units per hour heat input each.
- (c) Two (2) natural gas-fired Ingersoll-Rand four (4) cycle rich burn, reciprocating engine compressors, known as InRand04 and InRand05, exhausting to Stacks JO4 and JO5, installed in 1963 and 1969, respectively, rated at 500 horsepower output each and 4,500,000 British thermal units per hour heat input each.

**Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

**New Emission Units and Pollution Control Equipment Receiving New Source Review Approval**

There are no new facilities proposed at this source during this review process.

### Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour with a total rating of 2.041 million British thermal units per hour consisting of:
  - (1) One (1) mechanical/comp. boiler rated at 1.092 million British thermal units per hour installed in 2001.
  - (2) One (1) garage furnace rated at 0.050 million British thermal units per hour installed in 2001.
  - (3) One (1) pipe tech office furnace rated at 0.050 million British thermal units per hour installed in 2001.
  - (4) One (1) fire truck building hanging heater rated at 0.075 million British thermal units per hour installed in 1990.
  - (5) One (1) storage building NE heater rated at 0.050 million British thermal units per hour installed in 1995.
  - (6) Two (2) storage room hanging heaters rated at 0.075 million British thermal units per hour each installed in 1994.
  - (7) One (1) store room office furnace rated at 0.080 million British thermal units per hour installed in 1994.
  - (8) One (1) water heater rated at 0.033 million British thermal units per hour installed in 1994.
  - (9) Two (2) water heaters rated at 0.032 million British thermal units per hour each installed in 1987 and 1993.
  - (10) One (1) new office furnace rated at 0.150 million British thermal units per hour installed in 1993.
  - (11) One (1) meeting room furnace rated at 0.150 million British thermal units per hour installed in 1993.
  - (12) One (1) gas control furnace rated at 0.067 million British thermal units per hour installed in 1987.
  - (13) One (1) storage building (documents) heater rated at 0.030 million British thermal units per hour installed in 1990.
- (b) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.
- (c) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.



- (d) Closed loop heating and cooling systems.
- (e) Paved and unpaved roads and parking lots with public access.
- (f) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.
- (g) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (h) Emergency generators as follows: Natural gas turbines or reciprocating engines not exceeding 16,000 horsepower, consisting of one (1) natural gas fired reciprocating engine rated at 195 horsepower output.

### Existing Approvals

FESOP 055-6575-00029, issued on March 3, 1997.

All conditions from previous approvals were incorporated into this FESOP except the following:

FESOP 055-6575-00029, issued on March 3, 1997.

Condition D.1.1

Reason not incorporated: The source was given the option of complying with either a 365-day rolling total of 98.0 tons of NO<sub>x</sub> equivalent to a natural gas fuel usage of 69,130,000 cubic feet or a 89.83 tons of NO<sub>x</sub> per twelve (12) consecutive month period, equivalent to natural gas fuel usage of 63,370,000 cubic feet. Note the previous twelve (12) month NO<sub>x</sub> limit represent 11/12th of the 365-day FESOP limit. In addition, the NO<sub>x</sub> emission factor for natural gas-fired 2-cycle lean burn engines has changed from 2.7 to 3.17 pounds per million British thermal units. This condition has been replaced by a limit of less than 97.7 tons of NO<sub>x</sub> per twelve (12) consecutive month period for the five (5) engine compressors, equivalent to less than 58,705,122 cubic feet of natural gas fuel usage.

### Enforcement Issue

There are no enforcement actions pending.

### Recommendation

The staff recommends to the Commissioner that the FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP Renewal application for the purposes of this review was received on May 23, 2001. Additional information was received on April 29, 2002.

There was no notice of completeness letter mailed to the source.

## Emission Calculations

See pages 1 through 5 of 5 of Appendix A of this document for detailed emissions calculations.

## Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP adjusted for changes in the insignificant activities.

<b>Pollutant</b>	<b>Unrestricted Potential Emissions (tons/year)</b>
PM	10.0
PM <sub>10</sub>	10.1
SO <sub>2</sub>	0.005
VOC	3.90
CO	180
NO <sub>x</sub>	229

Note: For the purpose of determining Title V applicability for particulates, PM<sub>10</sub>, not PM, is the regulated pollutant in consideration.

<b>HAPs</b>	<b>Unrestricted Potential Emissions (tons/year)</b>
TOTAL	2.78

See Appendix A Pages 2, 3 and 5 of 5 for a detailed breakdown of HAPs.

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of NO<sub>x</sub> and CO are equal to or greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

## Potential to Emit After Issuance

The source, issued a FESOP on March 3, 1997, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of the Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Since the source has not

constructed any new emission units, the source's potential to emit is based on the emission units included in the original FESOP (F 055-6575-00029; issued on March 3, 1997).

	<b>Potential to Emit After Issuance</b> (tons/year)						
Process/emission unit	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
5 Engine Compressors Ajax01, Worth02, Worth03, Rand04 & Rand05	0.00	0.00	0.000	1.63	Less Than 75.9	Less Than 97.7	0.312
Natural Gas Combustion Insignificant Activities	0.017	0.068	0.005	0.049	0.751	0.894	0.017
Natural Gas Emergency Generator Insignificant Activities	0.003	0.013	0.0002	0.041	1.27	1.39	0.028
Other Insignificant Activities	10.0	10.0	-	2.00	-	-	2.00
Total PTE After Issuance	10.0	10.1	0.005	3.72	Less Than 77.9	Less Than 100	Single Less Than 10 Total Less Than 25

The source has accepted a total fuel usage limit of less than 58,705,122 cubic feet of natural gas per twelve (12) consecutive month period, equivalent to less than 97.7 tons of NO<sub>x</sub> and less than 75.9 tons of CO per year for the five (5) engine compressors.

### County Attainment Status

The source is located in Greene County.

Pollutant	Status
PM <sub>10</sub>	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Greene County has been designated as attainment or unclassifiable for ozone.
- (b) Greene County has been classified as attainment, maintenance attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

#### **Federal Rule Applicability**

- (a) There are still no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are still no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20, 40 CFR Part 61 and 40 CFR Part 63) applicable to this source. Subpart ZZZZ for Reciprocating Internal Combustion Engines has not yet been proposed in the Federal Register, but since this source is not a major for HAPs, in all likelihood the NESHAP Subpart ZZZZ will not apply.

#### **State Rule Applicability - Entire Source**

##### **326 IAC 2-6 (Emission Reporting)**

This source is located in Greene County and the potential to emit NO<sub>x</sub> is less than one hundred (100) tons per year. Therefore 326 IAC 2-6 does not apply.

##### **326 IAC 2-8-4 (FESOP)**

Pursuant to this rule, the amount of CO and NO<sub>x</sub> shall be limited to less than one hundred (100) tons per year. In addition, the amount of a single HAP shall be limited to less than ten (10) tons per year and the combination of all HAPs shall be limited to less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 2-7, do not apply.

##### **326 IAC 5-1 (Opacity Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR Part 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### **State Rule Applicability - Individual Facilities**

##### **326 IAC 2-2 (Prevention of Significant Deterioration (PSD))**

The source constructed prior to the PSD applicability date of August 7, 1977 is still a minor existing

PSD source.

326 IAC 2-8-4 (FESOP)

The source has accepted a natural gas fuel usage limit of less than a total of 58,705,122 cubic feet per twelve (12) consecutive month period, equivalent to less than 97.7 tons of nitrogen oxides and less than 75.9 tons of carbon monoxide per year for the five (5) engine compressors. Compliance with this fuel usage limit makes the requirements of 326 IAC 2-7 not applicable for the entire source.

**Testing Requirements**

There still are no testing requirements for this source.

**Compliance Requirements**

There were no compliance requirements in the previous approval and there are no new compliance requirements.

**Conclusion**

The operation of this stationary natural gas compressor station shall be subject to the conditions of the attached proposed FESOP No.: F 055-14432-00029.

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**

Page 1 of 5 TSD App A

**Company Name:** Citizens Gas & Utility - Johnstown Compressor Station  
**Address City IN Zip:** State Road 157, 4 1/2 Miles North of Worthington, Johnstown, Indiana 47471  
**FESOP Renewal:** F 055-14432  
**Pit ID:** 055-00029  
**Reviewer:** Mark L. Kramer  
**Date:** May 29, 2001

**Insignificant Activities**

Heat Input Capacity  
MMBtu/hr

2.0410

Potential Throughput  
MMCF/yr

17.88

Description	Total Rating mmBtu/hr	Description	Rating mmBtu/hr
Mech./Comp Boiler	1.092	Water Heater	0.033
Garage Furnace	0.05	2 Water Heaters	0.064
Pipe Tech Off Furnace	0.05	New Office Furn.	0.150
Fire Truck Bldg. Heater	0.075	Mtg Rm Furnace	0.150
Storage Bldg. NE	0.05	Gas Control Furn.	0.067
2Storage Rm Heaters	0.15	Storage Bldg Doc	0.030
Store Rm Off Furnace	0.08	<b>Total</b>	<b>2.0410</b>

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.017	0.068	0.0054	0.894	0.049	0.751
Boiler Only rated at 1.092 mmbtu/hr	0.009					

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**  
**HAPs Emissions**

Page 2 of 5 TSD App A

**Company Name:** Citizens Gas & Utility - Johnstown Compressor Station  
**Address City IN Zip:** State Road 157, 4 1/2 Miles North of Worthington, Johnstown, Indiana 47471  
**FESOP Renewal:** F 055-14432  
**Plt ID:** 055-00029  
**Reviewer:** Mark L. Kramer  
**Date:** May 29, 2001

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.88E-05	1.07E-05	6.70E-04	1.61E-02	3.04E-05

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total HAPs
Potential Emission in tons/yr	4.47E-06	9.83E-06	1.25E-05	3.40E-06	1.88E-05	0.017

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.  
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emission Calculations**  
**Natural Gas-fired Reciprocating Engines**  
**Emergency Generator**  
**Limited to 500 hours of Operation**

**Page 3 of 5 TSD App A**  
F 055-14432  
055-00029

Two stroke Lean Burn Engines  
Heat Input Capacity                      MM Btu/hr

1.365						
	Pollutant					
	PM	PM10	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
Emission Factor in lb/MMBtu	9.91E-03	3.84E-02	5.88E-04	3.17E+00	1.20E-01	3.86E-01
Potential Emission in tons/yr	0.003	0.013	0.000	1.082	0.041	0.132

Four stroke Lean Burn Engines  
Heat Input Capacity                      MM Btu/hr

1.365						
	Pollutant					
	PM	PM10	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
Emission Factor in lb/MMBtu	9.91E-03	7.71E-05	5.88E-04	4.08E+00	1.18E-01	3.17E-01
Potential Emission in tons/yr	0.003	0.000	0.000	1.392	0.040	0.108

Four stroke Rich Burn Engines  
Heat Input Capacity                      MM Btu/hr

1.365						
	Pollutant					
	PM	PM10	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
Emission Factor in lb/MMBtu	9.91E-03	9.50E-03	5.88E-04	2.21E+00	2.96E-02	3.72E+00
Potential Emission in tons/yr	0.003	0.003	0.000	0.754	0.010	1.269
<b>Worst Case Emissions tons/yr</b>	<b>0.003</b>	<b>0.013</b>	<b>0.0002</b>	<b>1.392</b>	<b>0.041</b>	<b>1.269</b>

**Worst Case**

HAP	Emission Factor Two stroke lean burn (lb/MMBtu)	Emission Factor Four stroke lean burn (lb/MMBtu)	Emission Factor Four stroke rich burn (lb/MMBtu)	Potential to Emit (tons/yr)
1,1,2,2-Tetrachloroethane	6.63E-05	4.00E-05	2.53E-05	2.26E-05
1,1,2-Trichloroethane	5.27E-05	3.18E-05	1.53E-05	1.80E-05
1,1-Dichloroethane	3.91E-05	2.36E-05	1.13E-05	1.33E-05
1,2-Dichloroethane	4.22E-05	2.36E-05	1.13E-05	1.44E-05
1,2-Dichloropropane	4.46E-05	2.69E-05	1.30E-05	1.52E-05
1,3-Butadiene	8.20E-04	2.67E-04	6.63E-04	2.80E-04
1,3-Dichloropropene	4.38E-05	2.64E-05	1.27E-05	1.49E-05
2,2,4-Trimethylpentane	8.46E-04	2.50E-04	0.00E+00	2.89E-04
Acetaldehyde	7.76E-03	8.36E-03	2.79E-03	2.85E-03
Acrolein	7.78E-03	5.14E-03	2.63E-03	2.65E-03
Benzene	1.94E-03	4.40E-04	1.58E-03	6.62E-04
Biphenyl	3.95E-06	2.12E-04	0.00E+00	7.23E-05
Carbon Tetrachloride	6.07E-05	3.67E-05	1.77E-05	2.07E-05
Chlorobenzene	4.44E-05	3.04E-05	1.29E-05	1.52E-05
Chloroethane	0.00E+00	1.87E-06	0.00E+00	6.38E-07
Chloroform	4.71E-05	2.85E-05	1.37E-05	1.61E-05
Ethylbenzene	1.08E-04	3.97E-05	2.48E-05	3.69E-05
Ethylene Dibromide	7.34E-05	4.43E-05	2.13E-05	2.50E-05
Formaldehyde	5.52E-02	5.28E-02	2.05E-02	1.88E-02
Methanol	2.48E-03	2.50E-03	3.06E-03	1.04E-03
Methylene Chloride	1.47E-04	2.00E-05	4.12E-05	5.02E-05
n-Hexane	4.45E-04	1.11E-03	0.00E+00	3.79E-04
Naphthalene	9.63E-05	7.44E-05	9.71E-05	3.31E-05
Phenol	4.21E-05	2.40E-05	0.00E+00	1.44E-05
Styrene	5.48E-05	2.36E-05	1.19E-05	1.87E-05
Toluene	9.63E-04	4.08E-04	5.58E-04	3.29E-04
Vinyl Chloride	2.47E-05	1.49E-05	7.18E-06	8.43E-06
Xylene	2.68E-04	1.84E-04	1.95E-04	9.15E-05
<b>Total HAPs:</b>				<b>0.028</b>

**Methodology**

Emission Factors are from AP 42 Tables 3.2-1, 3.2-2 and 3.2-3, revised July 2000  
Emission (tons/yr) = [Heat input rate (MMBtu/hr) x Emission Factor (lb/MMBtu)] \* 500 hr/yr / (2,000 lb/ton)  
195 HP = 1,365 mmBtu/hr assuming a standard 7,000 Btu/s/hp-hr.



**Appendix A: Emission Calculations**  
**Natural Gas Reciprocating Compressor Engines**

Page 4 of 5 TSD App A

**Company Name:** Citizens Gas & Utility - Johnstown Compressor Station  
**Address City IN Zip:** State Road 157, 4 1/2 Miles North of Worthington, Johnstown, Indiana 47471  
**FESOP Renewal:** F 055-14432  
**Plt ID:** 055-00029  
**Reviewer:** Mark L. Kramer  
**Date:** May 29, 2001

Each Output Horsepower	Total Output Horsepower
230	230

**Emissions calculated based on output rating (hp)**

Compressor Engine  
**1 Ajax 2-cycle rich**

Mechanical Output Horsepower (hp)	Potential Throughput hp-hr/yr	Total
230.0	2014800.0	230

Emission Factor in lb/hp-hr	AP-42 Pollutant					
	PM 0.0000	PM-10 0.0000	SO2 0.0000	NOx 0.0240	VOC 0.00095	CO 0.00331
Potential Emission in tons/yr	0.00	0.00	0.00	24.178	0.957	3.334

Used 2-cycle lean emission factors

Each Output Horsepower	Total Output Horsepower
550	1100
500	1000
Total	2100

Mechanical Output  
Horsepower (hp)

Compressor Engine  
**2 Worthington 4-cycle rich**  
**2 Ingersoll Rand 4-cycle rich**

2100.0	18396000.0
--------	------------

Emission Factor in lb/hp-hr	Pollutant					
	PM 0.0000	PM-10 0.0000	SO2 0.0000	NOx 0.0220	VOC 0.00031	CO 0.01900
Potential Emission in tons/yr	0.00	0.00	0.00	202.356	2.851	174.762

Emission Factors are from AP42 (Supplement B 10/96), Table 3.2-1

Emission (tons/yr) = [Potential Throughput (hp-hr/yr) x Emission Factor (lb/hp-hr)] / (2,000 lb/ton)

**Limited Natural Gas Throughput Calculation AP-42**

Heating Value of Natural Gas	1050	Btu/CF
NOx Emission Factor 2-cycle lean	2.7	lb/mmBtu
NOx Emission Factor 4-cycle rich	2.3	lb/mmBtu
Limited NOx Emissions =	97.7	tons/yr
<b>Worst Case Limited Natural Gas</b>	68.92416	MMCF/yr

<b>FIRES 6.22</b>	
1050	Btu/CF
3.17	lb/mmBtu
2.27	lb/mmBtu
97.7	tons/yr
<b>58.70512243</b>	MMCF/yr

**Company Name:** Citizens Gas & Utility - Johnstown Compressor Station  
**Address City IN Zip:** State Road 157, 4 1/2 Miles North of Worthington, Johnstown, Indiana 47471  
**FESOP Renewal:** F 055-14432  
**Plt ID:** 055-00029  
**Reviewer:** Mark L. Kramer  
**Date:** May 29, 2001

## FIRES 6.22

## HAPs Emission Calculations

1 Ajax 2-cycle rich  
Compressor

2.04 mmBtu/hr

HAP	Emission Factor lbs/mmBtu	HAP Emission tons/yr
Acetaldehyde	7.760E-03	0.069337
Acrolein	7.780E-03	0.069516
Benzene	1.94E-03	0.017334
Biphenyl	3.95E-06	0.000035
1,3,-Butadiene	8.20E-04	0.007327
Carbon Tetrachloride	6.07E-05	0.000542
Chlorobenzene	4.4E-05	0.000393
Chloroform	4.71E-05	0.000421
1,3 Dichloropropene	4.38E-05	0.000391
Ethylbenzene	1.08E-04	0.000965
Ethylene dibromide	7.34E-05	0.000656
Ethylene dichloride	4.22E-05	0.000377
Formaldehyde	5.52E-02	0.493223
Xylenes	2.68E-04	0.002395
Methanol	2.48E-03	0.022159
Hexane	4.45E-04	0.003976
Naphthalene	9.63E-05	0.00086
Phenol	4.21E-05	0.000376
PAH	1.34E-04	0.001197
Propylene dichloride	4.46E-05	0.000399
Styrene	5.48E-05	0.00049
1,1,2,2, Tetrachloroethane	6.63E-05	0.000592
Toluene	9.63E-04	0.008605
1,1,2 Trichloroethane	5.27E-05	0.000471
Vinyl Chloride	2.47E-05	0.000221
Subtotal HAPs		0.702259

4 Rich Burn  
Compressors

20.09 mmBtu/hr

HAP	Emission Factor lbs/mmBtu	HAP Emission tons/yr
Acrolein	2.63E-03	0.231390
Benzene	1.58E-03	0.139010
1,3,-Butadiene	6.63E-04	0.058331
Carbon Tetrachloride	1.77E-05	0.001557
Chlorobenzene	1.29E-05	0.001135
Chloroform	1.37E-05	0.001205
1,3 Dichloropropene	1.27E-05	0.001117
Ethylbenzene	2.48E-05	0.002182
Ethylene dibromide	2.13E-05	0.001874
Ethylene dichloride	1.13E-05	0.000994
Formaldehyde	2.05E-02	1.803608
Xylenes	1.95E-04	0.017156
Methanol	3.06E-03	0.269221
Naphthalene	9.71E-05	0.008543
PAH	1.41E-04	0.012405
Propylene dichloride	1.30E-05	0.001144
Styrene	1.19E-05	0.001047
1,1,2,2, Tetrachloroethane	2.53E-05	0.002226
Toluene	5.58E-04	0.049093
1,1,2 Trichloroethane	1.53E-05	0.001346
Vinyl Chloride	7.18E-06	0.000632
Subtotal HAPs	0.02961118	
Total HAPs From Compressors	0.731870097	tons/yr